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5 UNITED STATES DISTRICT COURT
DISTRICT OF WASHINGTON
6 TACOMA DIVISION
7

8 CASCADE FOREST CONSERVANCY,
9 GREAT OLD BROADS FOR WILDERNESS,
WASHINGTON NATIVE PLANT SOCIETY,
10 SIERRA CLUB, DR. JOHN BISHOP, DR.
JAMES E. GAWEL, AND SUSAN SAUL,

11 *Plaintiffs,*

12 vs.

13 UNITED STATES FOREST SERVICE,

14 *Defendant.*
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Civ. Case No. 3:21-cv-5202-RJB

PLAINTIFFS' MOTION FOR
SUMMARY JUDGMENT AND
OPENING MEMORANDUM IN
SUPPORT OF MOTION

ORAL ARGUMENT REQUESTED

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MOTION

Plaintiffs Cascade Forest Conservancy, Great Old Broads for Wilderness, Washington Native Plant Society, Sierra Club, Dr. John Bishop, Dr. James E. Gawel, and Susan Saul (“Plaintiffs”) respectfully move the Court pursuant to FED. R. CIV. P. RULE 56(a) for summary judgment on their claims in its Complaint, Dkt. No. 1, against Federal Defendant United States Forest Service (“Forest Service”). This Motion is supported by the following Memorandum and the First Declarations of Dr. John Bishop, Lucy Brookham, Christine Colasurdo,¹ Dr. Carri LeRoy, Dr. James E. Gawel, Laurie Kerr, Susan Saul, Charles Raines, Emily Waters, Dr. Virginia H. Dale, and Rebecca Evans.

Plaintiffs seek a declaration that the Spirit Lake Project Environmental Assessment (“EA”), Decision Notice, and Finding of No Significant Impact (“DN/FONSI”) violate the National Environmental Policy Act (“NEPA”), the National Forest Management Act (“NFMA”), the Administrative Procedure Act (“APA”), and their implementing regulations. To remedy these violations of law, Plaintiffs ask the Court to vacate the Spirit Lake EA and DN/FONSI and remand the decision to the Forest Service.

ARGUMENT

I. INTRODUCTION.

As an active volcano in the Pacific Ring of Fire, Mount St. Helens is a powerful mountain—historically, geologically, culturally—for the United States and the world. It is a place that has commanded the attention and resources of all levels of government—city, county, state and federal—and continues to command respect, curiosity, creativity, and awe from humans who come in contact with its unpredictable, explosive potential. Since 1800, only two volcanoes have erupted in the contiguous United States: Lassen Peak in May 1915 and Mount St. Helens in May 1980. When

¹ On July 21, 2021, Ms. Colasurdo passed away unexpectedly. THE OREGONIAN, Obituaries, *Christine Ann Colasurdo 1961 – 2021* (July 31, 2021). Ms. Colasurdo’s declaration was finalized before her cancer diagnosis.

1 Lassen Peak erupted, few people witnessed it and no humans died—and yet within a year the area
2 became a national park, but when Mount St. Helens erupted, the cataclysmic eruption killed 57
3 people and altered its surrounding forested landscape for 230 square miles. Fifty bridges and miles of
4 roads were destroyed as well as homes, lodges, youth camps, and cabins. The area’s topography itself
5 was changed: river drainages were filled with sediment and debris, new lakes were formed by
6 blocked creeks, Spirit Lake was inundated with the volcano’s avalanching north face, and the
7 mountain itself lost most of its glaciers and 1,300 feet in elevation. The May 18, 1980 eruption was
8 viewed on television around the globe and consequently entered into Americans’ and foreigners’
9 imaginations alike as a powerful symbol of nature’s awesome force.

10 In 1982, Congress created the 110,000-acre Mount St. Helens National Volcanic Monument
11 (“MSHNVN”) to protect the main features of the blast zone—including Spirit Lake, the Pumice
12 Plain, the Mount Margaret Backcountry, and the volcano itself. The monument’s mission is to protect
13 the “geologic, ecologic, and cultural resources” to allow “geologic forces and ecological succession
14 to continue substantially unimpeded.” Administrative Record (“AR”) 00695. Another primary
15 mission is to “permit the full use of the Monument for scientific study and research.” *An Act to*
16 *designate the Mount St. Helens National Volcanic Monument in the State of Washington*, Public Law
17 97–243, Section 4(c); see Saul Decl. ¶¶ 12-39; Dale Decl. ¶¶ 15- 16, 18. In 1985, the Forest Service
18 developed a Comprehensive Plan for the Monument, which explains that “The landscape and
19 ecosystem within the Monument are of extremely high scientific importance. Opportunities for basic
20 and applied research and for public education are unparalleled.” AR 00555. The Plan identified a
21 need to protect research plots and natural process areas by limiting access to the research area:
22 “Broad scale natural features or processes with high scientific value are currently protected by the
23 controlled access to the restricted zone and by limited access elsewhere in the monument.” AR

1 00559. The Plan also provided for the past, present, and future importance of the scientific work
2 being done at Mount St. Helens. AR 00557. The Monument was stratified into three zones based on
3 each zone's sensitivity to disturbance. The Pumice Plain was designated as Protection Class 1, which
4 requires the Forest Service to manage the area to "Provide maximum opportunity for natural
5 processes and features to continue unimpeded in the most sensitive areas." AR 00695.

6 Almost forty years later, the result of Congress' designation is world-renowned research that
7 has caused biology textbooks to be rewritten. Bishop Decl. ¶¶ 3-35; Gawel Decl. ¶¶ 3-30; LeRoy
8 Decl. ¶¶ 2-22; Dale Decl. ¶¶ 1-23; AR 05811, 05815, 05819, 05820, 05822, 05834, 05836-37, 05841,
9 05847, 05853, 05860, 05879, 05962, 05970-71, 04238-40, 06786, 04163-70, 05825. The study of
10 ecology has been turned upside down by research conducted in Mount St. Helens' blast zone,
11 especially on the Pumice Plain, the area between the volcano and Spirit Lake. *Id.* Scientists' previous
12 hypotheses about how ecosystems are created had to be revised once scientists began documenting
13 post-eruption life. *Id.* Within a few years of the monument's creation, Mount St. Helens became an
14 internationally known outdoor classroom that attracted researchers from around the globe. *Id.*

15 The quality and quantity of research at the volcano has been unparalleled in the world. Bishop
16 Decl. ¶¶ 3-35; Gawel Decl. ¶¶ 3-30; LeRoy Decl. ¶¶ 2-22; Dale Decl. ¶¶ 1-23; AR 05811, 05815,
17 05819, 05820, 05822, 05834, 05836-37, 05841, 05847, 05853, 05860, 05879, 05962, 05970-71,
18 04238-40, 06786, 04163-70, 05825. Numerous 40-year, ongoing studies on the Pumice Plain
19 regarding how birds, small mammals, amphibians and mycorrhizae respond to explosive volcanism
20 are unique in the world: no other research of this kind is done except at Mount St. Helens. *Id.* Most
21 compelling, perhaps, is the story of the first known plant to colonize the Pumice Plain—the alpine
22 lupine (*Lupinus lepidus*). Bishop Decl. ¶¶ 8-29. Discovered in July 1981, this little wildflower has
23 become the center of many other studies and has ignited the curiosity of the media, who have told its

1 story in journals, books, magazines, newspapers and film documentaries. The study of lupine
2 colonization is ongoing and, like other Pumice Plain research, is expected to continue for many
3 decades. *Id.*

4 Over the last decade, millions of dollars have been spent on Pumice Plain research. The Forest
5 Service has funded significant portions of the research, as well as the National Science Foundation
6 and universities around the world. Bishop Decl. ¶¶ 3-35; Gawel Decl. ¶¶ 3-30; LeRoy Decl. ¶¶ 2-22;
7 Dale Decl. ¶¶ 1-23; AR 05811, 05815, 05819, 05820, 05822, 05834, 05836-37, 05841, 05847, 05853,
8 05860, 05879, 05962, 05970-71, 04238-40, 06786, 05825. Mount St. Helens' research is globally
9 significant, with scientists sharing data with their peers around the world. *Id.*

10 Today, research continues at Mount St. Helens: studies concerning hydrology, environmental
11 chemistry, biogeochemistry, limnology, phycology, aquatic entomology, fish genetics, and freshwater
12 ecology are bringing dozens of undergraduates and Ph.D. candidates to the area to expand human
13 knowledge of how organisms adapt and evolve in newly created ecosystems set in regenerating
14 watersheds. Bishop Decl. ¶¶ 3-35; Gawel Decl. ¶¶ 3-30; LeRoy Decl. ¶¶ 2-22; Dale Decl. ¶¶ 1-23;
15 AR 05811, 05815, 05819, 05820, 05822, 05834, 05836-37, 05841, 05847, 05853, 05860, 05879,
16 05962, 05970-71, 04238-40, 06786, 04163-70, 05825. The cumulative knowledge gained at Mount
17 St. Helens is nothing less than astounding—and its future is intellectually endless, as the volcano's
18 dynamic, ever-evolving landscape offers up new questions each year. *Id.*

19 And yet this volcano is not a national park; it is administered by the Forest Service, whose
20 main mission has been to oversee resource extraction such as logging in America's national forests.
21 That the Forest Service would propose cutting a road through these studies and building
22 infrastructure in sensitive riparian areas is not only shocking but potentially tragic. The Spirit Lake
23 Project would destroy the 40-year research sites, including the much-loved lupine site, where in 1981

1 one wildflower announced to the world that life could return to the volcano's hellish, blast-fired, ash-
2 choked land. Bishop Decl. ¶¶ 3-35; Gawel Decl. ¶¶ 3-30; LeRoy Decl. ¶¶ 2-22; Dale Decl. ¶¶ 1-23;
3 AR 05811, 05815, 05819, 05820, 05822, 05834, 05836-37, 05841, 05847, 05853, 05860, 05879,
4 05962, 05970-71, 04238-40, 06786, 04163-70, 05825. The proposed road would also destroy the site
5 of the first willow to colonize a stream on the Pumice Plain near Willow Springs. *Id.* The proposed
6 road would not only harm the scientists' taxpayer-funded work and professions, but also it would be
7 an incomprehensible, irreparable loss of an irreplaceable landscape, a loss to science itself, to the
8 United States, and to the pursuit of human knowledge. *Id.* This Court cannot allow that to happen.

9 **II. JURISDICTION.**

10 Jurisdiction is proper in this Court pursuant to 28 U.S.C. §§ 1331 (federal question), 1346
11 (United States as a defendant), 2201 (injunctive relief), and 2202 (declaratory relief). The current
12 cause of action arises under the laws of the United States, including the Administrative Procedure
13 Act, 5 U.S.C. §§ 701 *et seq.*; the National Environmental Policy Act, 42 U.S.C. §§ 4321 *et seq.*; and
14 the National Forest Management Act, 16 U.S.C. §§ 1600 *et seq.*. An actual, justiciable controversy
15 exists between Plaintiffs and Defendants. Venue in this Court is proper under 28 U.S.C. § 1391
16 because all or a substantial part of the events or omissions giving rise to the claims herein occurred
17 within this judicial district. The Forest Service official who authorized and approved the decision is
18 headquartered in Vancouver, Washington, which is located within this district. Plaintiffs have offices
19 within this district. This case is properly filed in Tacoma, Washington pursuant to Local Rule 3(e)(1)
20 because the Gifford Pinchot National Forest Supervisor's Office and Mount St. Helens National
21 Volcanic Monument are located in Skamania County, Washington, and the Spirit Lake Tunnel Intake
22 Gate Replacement and Geotechnical Drilling Project ("Spirit Lake Project" or "Project") is located on
23 lands located in Skamania County, Washington.

1 **III. STANDARD OF REVIEW.**

2 Summary judgment is appropriate if “there is no genuine issue as to any material fact
3 and...the moving party is entitled to judgment as a matter of law.” FED. R. CIV. P. 56(c). Judicial
4 review of agency actions under NEPA and NFMA and their implementing regulations is governed by
5 the APA. 5 U.S.C. § 706; *Karuk Tribe of Cal. v. U.S. Forest Serv.*, 681 F.3d 1006, 1017 (9th Cir.
6 2012) (en banc). Under the APA, “[t]he reviewing court shall . . . hold unlawful and set aside agency
7 action, findings, and conclusions found to be arbitrary, capricious, an abuse of discretion, or
8 otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A).

9 An agency action is arbitrary and capricious “if the agency relied on factors Congress did not
10 intend it to consider, ‘entirely failed to consider an important aspect of the problem,’ or offered an
11 explanation ‘that runs counter to the evidence before the agency or is so implausible that it could not
12 be ascribed to a difference in view or the product of agency expertise.’” *Lands Council v. McNair*,
13 537 F.3d 981, 987 (9th Cir. 2008) (internal citation omitted). The arbitrary and capricious standard is
14 deferential, but it does not shield agency decisions from a “thorough, probing, in-depth review.”
15 *Citizens to Pres. Overton Park, Inc. v. Volpe*, 401 U.S. 402, 415 (1971). The Forest Service must
16 articulate “a rational connection between the facts found and the conclusions made.” *Or. Nat. Res.*
17 *Council v. Lowe*, 109 F.3d 521, 526 (9th Cir. 1997). It is not entitled to deference where its
18 conclusions “do not have a basis in fact.” *Ariz. Cattle Growers’ Ass’n v. U.S. Fish & Wildlife Serv.*,
19 273 F.3d 1229, 1236 (9th Cir. 2001). An agency’s decision can be upheld only on the basis of the
20 reasoning found in that decision; the reviewing court cannot substitute reasons for agency action that
21 are not in the record. *Anaheim Mem’l Hosp. v. Shalala*, 130 F.3d 845, 849 (9th Cir. 1997).

1 **IV. LEGAL AND FACTUAL BACKGROUND.**

2 **A. The Administrative Procedure Act.**

3 The APA confers a right of judicial review on any person that is adversely affected by agency
4 action. 5 U.S.C. § 702. Upon review, the court shall “hold unlawful and set aside agency actions ...
5 found to be arbitrary, capricious, an abuse of discretion or otherwise not in accordance with the law.”
6 5 U.S.C. § 706(2)(A).

7 **B. The National Environmental Policy Act.**

8 Congress enacted the National Environmental Policy Act (“NEPA”) in 1969, directing all
9 federal agencies to assess the environmental impact of proposed actions that significantly affect the
10 quality of the environment. 42 U.S.C. § 4332(2)(C). NEPA’s disclosure goals are two-fold: (1) to
11 insure that the agency has carefully and fully contemplated the environmental effects of its action;
12 and (2) to insure that the public has sufficient information to challenge the agency’s action. The
13 Council on Environmental Quality (“CEQ”) has promulgated uniform regulations to implement
14 NEPA that are binding on all federal agencies, including the Forest Service. 42 U.S.C. § 4342; 40
15 C.F.R. §§ 1500 et seq. (1978).

16 If an agency is unsure if a federal action will have a significant effect on the human
17 environment, it must prepare an Environmental Assessment (“EA”) to determine if a more detailed
18 Environmental Impact Statement (“EIS”) is required. 40 C.F.R. § 1501.4. For an agency’s decision
19 not to prepare an EIS to be considered reasonable, a decision notice and finding of no significant
20 impact (“DN/FONSI”) must contain sufficient evidence and analysis to show the decision is
21 reasonably supported by the facts. The agency must show a rational connection between the facts
22 found and the decision rendered. If the agency fails to consider important aspects of the problem in
23 its EA, its decision is arbitrary and capricious.

1 To support a determination of non-significance, NEPA documents must consider the direct,
2 indirect, and cumulative environmental impacts of a proposed action. 40 C.F.R. § 1508.8. Direct
3 effects are caused by the action and occur at the same time and place as the proposed project. 40
4 C.F.R. § 1508.8(a). Indirect effects are caused by the action and are later in time or farther removed
5 in distances but are still reasonably foreseeable. 40 C.F.R. § 1508.8(b). Both types of impacts include
6 “effects on natural resources and on the components, structures, and functioning of affected
7 ecosystems,” as well as “aesthetic, historic, cultural, economic, social or health [effects].” 40 C.F.R. §
8 1508. Cumulative impact results when the “incremental impact of the action [is] added to other past,
9 present, and reasonably foreseeable future actions” undertaken by any person or agency. 40 C.F.R. §
10 1508.7. In addition, “connected actions” are actions that “are closely related and therefore should be
11 discussed in the same impact statement. Actions are connected if they: (i) Automatically trigger other
12 actions which may require environmental impact statements; (ii) Cannot or will not proceed unless
13 other actions are taken previously or simultaneously; (iii) Are interdependent parts of a larger action
14 and depend on the larger action for their justification.” 40 C.F.R. §§ 1508.25(a)(1)(i) – (iii).
15 Similarly, “cumulative actions” are actions that “when viewed with other proposed actions have
16 cumulatively significant impacts and should therefore be discussed in the same impact statement.” 40
17 C.F.R. § 1508.25(a)(2). Connected and cumulative actions must be considered in the same
18 environmental impact statement along with a proposed action that may have significant
19 environmental consequences.

20 In determining whether a proposed action may “significantly” impact the environment, both
21 the context and intensity of the action must be considered. 40 C.F.R. § 1508.27. In evaluating
22 “context,” the Forest Service must assess the significance of an action “in several contexts such as
23 society as a whole (human, national), the affected region, the affected interests, and the locality.

1 Significance varies with the setting of the proposed action.” 40 C.F.R. § 1508.27(a). In evaluating
2 intensity, the Forest Service must consider numerous “significance” factors. 40 C.F.R. §§
3 1508.27(b)(1) – (b)(10).

4 **C. The National Forest Management Act.**

5 The National Forest Management Act (“NFMA”) requires the Forest Service to develop
6 comprehensive land and resource management plans (“LRMPs”) for each unit of the National Forest
7 System. 16 U.S.C. § 1604(a). Subsequent “plans, permits, contracts, and other instruments for the use
8 and occupancy” of the national forests must be consistent with the local LRMP, in this case, the
9 Gifford Pinchot National Forest Land and Resource Management Plan, as amended. 16 U.S.C. §
10 1604(i); 36 C.F.R. § 219.10(e). If a site-specific project will not meet land and resource management
11 plan requirements, Forest Service decision makers have four lawful options: 1) alter the project to
12 comply with the land and resource management plan; 2) amend the land and resource management
13 plan with a “project-specific amendment” that brings the plan into compliance with the site-specific
14 project on a one-time basis; 3) amend the land and resource management plan with a “plan
15 amendment” that amends the plan not only for the site-specific project in question, but also for all
16 future projects; or 4) abandon the project.

17 In 2016, the Forest Service amended its regulations to address the issue of amending forest
18 plans. Forest Service, *National Forest System Land Management Planning, Final Rule*, 81 Fed. Reg.
19 90,723, 90,725 – 90,726 (Dec. 16, 2016); 36 C.F.R. § 219.13(b)(5). Responding to public comment
20 on the 2016 amendment that suggested that the 2012 Planning Rule allowed the Forest Service to
21 simply exempt a project from applicable forest plan requirements, the agency explained:

22 Other members of the public suggested an opposite view: That the 2012 rule gives the
23 responsible official discretion to selectively pick and choose which, if any, provisions of the
24 rule to apply, thereby allowing the responsible official to avoid 2012 rule requirements or
even propose amendments that would contradict the 2012 rule. Under this second

1 interpretation, some members of the public hypothesized that a responsible official could
 2 amend a 1982 rule plan to remove plan direction that was required by the 1982 rule without
 3 applying relevant requirements in the 2012 rule. This final rule clarifies that neither of these
 4 interpretations is correct. [Instead] the responsible official's discretion to tailor the scope and
 5 scale of an amendment is not unbounded; the 2012 rule does not give a responsible official
 6 the discretion to amend a plan in a manner contrary to the 2012 rule by selectively applying,
 or avoiding altogether, substantive requirements within §§ 219.8 through 219.11 that are
 directly related to the changes being proposed. Nor does the 2012 rule give responsible
 officials discretion to propose amendments "under the requirements" of the 2012 rule that are
 contrary to those requirements, or to use the amendment process to avoid both 1982 and 2012
 rule requirements (§ 219.17(b)(2)).

7 81 Fed. Reg. 90,725. A "substantive requirement" is "directly related" to the amendment when the
 8 requirement "is associated with either the purpose for the amendment or the effects (beneficial or
 9 adverse) of the amendment." *Sierra Club, Inc. v. United States Forest Serv.*, 897 F.3d 582, 602 (4th
 10 Cir.), *reh'g granted in part*, 739 F. App'x 185 (4th Cir. 2018) (quoting 81 Fed. Reg. 90,723, 90,731).

11 For the Spirit Lake Project, the Forest Service disclosed that the Project "would not be
 12 consistent with the management area category standard...designated visual quality objective of
 13 retention for the project area" without a project-level plan amendment. AR 05573.

14 **D. The Northwest Forest Plan.**

15 In 1994, the Bureau of Land Management and the United States Forest Service issued a
 16 Record of Decision for the Northwest Forest Plan ("NFP"), which established management
 17 requirements for all Forest Service land within the range of the northern spotted owl and amended all
 18 National Forest LRMPs within the range of the owl, including the Gifford Pinchot National Forest
 19 LRMP. The Aquatic Conservation Strategy ("ACS") of the NFP was developed to restore and
 20 maintain the ecological health of watersheds and aquatic ecosystems contained within them, and to
 21 protect salmon and steelhead habitat on federal lands. The ACS accomplishes its goals through
 22 mandatory compliance with nine Aquatic Conservation Strategy Objectives ("ACSOs"). AR 01457-
 23 58. The NFP states "Management actions that do not maintain the existing condition or lead to

1 improved conditions in the long term would not “meet” the intent of the ACS and thus, should not be
2 implemented.” AR 01457. To find that a project “meets” or “does not prevent attainment” of the ACS
3 objectives, project-level analysis must include a description of the existing condition, a description of
4 the range of natural variability of the important physical and biological components of a given
5 watershed, and how the proposed project or management action maintains the existing condition or
6 moves it within the range of natural variability. *Id.*

7 In addition, the ACS includes the requirement that the Forest Service designate Riparian
8 Reserves, a NFP land use allocation applicable to “portions of watersheds where riparian-dependent
9 resources receive primary emphasis and where special standards and guidelines apply.” AR 01458.
10 Riparian Reserves generally parallel “standing and flowing water, intermittent stream channels and
11 ephemeral ponds, and wetlands,” and “also include other areas necessary for maintaining hydrologic,
12 geomorphic, and ecologic processes” such as geologically “unstable and potentially unstable” areas.
13 AR 01458-59. “Riparian Reserves are used to maintain and restore riparian structures and functions
14 of intermittent streams, confer benefits to riparian-dependent and associated species other than fish,
15 enhance habitat conservation for organisms that are dependent on the transition zone between upslope
16 and riparian areas, improve travel and dispersal corridors for many terrestrial animals and plants, and
17 provide for greater connectivity of the watershed.” AR 01459.

18 **E. The 2018 Spirit Lake Motorized Access for Core Sampling and Inlet Access**
19 **Project.**

20 The eruption of Mount St. Helens in 1980 blocked Spirit Lake’s natural outflow into the
21 North Fork Toutle River. The U.S. Army Corps of Engineers (“Corps”) mobilized to address flooding
22 and the threat of debris blockage failures at Spirit Lake that would cause extensive flooding in the
23 Toutle, Cowlitz, and Columbia Rivers. Saul Decl. ¶ 11; Raines Decl. ¶ 5. The Corps began the
24 pumping of Spirit Lake in the fall of 1982 while it designed a more permanent solution, eventually

1 determining that a 1.6-mile, 11-foot diameter tunnel drilled through Harry's Ridge was the best
2 option. Tunnel construction was completed in April 1985 and the Corps turned it over to the Forest
3 Service to manage. The tunnel manages the lake level and prevents Spirit Lake from overtopping the
4 landslide debris and volcanic material blockage. Despite the overall success of the existing tunnel,
5 major repairs in 1995, 1996, and 2016 required extended closures of the tunnel gate and outlet flow,
6 which allowed the lake to approach the maximum safe operating level.

7 In 2018, the Forest Service completed analysis for the Spirit Lake Motorized Access for Core
8 Sampling and Inlet Access Project ("2018 Project"). The 2018 Project originally had two purposes:
9 (1) provide motorized utility-terrain vehicle access to the lake shore where Forest Service personnel
10 access their workboat for tunnel operations and maintenance, and (2) provide motorized access and
11 allow for geotechnical investigations including core sampling (drilling). AR 04043. On August 10,
12 2018, the Forest Service issued a decision notice to provide motorized utility-terrain vehicle access to
13 Spirit Lake at Duck Bay, AR 03873-3889, and constructed the Duck Bay route later that month; but
14 portions of the route were washed away within two months of its construction and prior to its use,
15 requiring repair in summer 2019. LeRoy Decl. ¶¶ 5-6. The landscape scar for this access road is
16 clearly visible from Windy Ridge overlook parking lot, marring the public's view. *Id.*

17 The Forest Service issued a second draft decision notice focused on motorized access and
18 drilling on November 6, 2018. The Forest Service withdrew the second decision in April 2019, "in
19 order to further analyze impacts to ongoing and future research and to work towards establishing a
20 monitoring and implementation group of interested parties."

21 **F. The 2021 Spirit Lake Tunnel Intake Gate Replacement and Geotechnical Drilling**
22 **Project.**

23 Because the 2018 Project was unsuccessful at meeting the purpose and need of the Project,
24 the Forest Service announced in December 2019 that it would again attempt to develop a project to

1 make repairs to the Spirit Lake tunnel and conduct drilling on the Pumice Plain, published a notice of
2 proposed action for the Spirit Lake Tunnel Intake Gate Replacement and Geotechnical Drilling
3 Project (“Spirit Lake Project” or “Project”), and requested public comment on the scoping document.
4 AR 04625-04668. Plaintiffs provided timely scoping comments. AR 04768-04781, 04786-04822. In
5 April 2020, the Forest Service released the Spirit Lake Project Environmental Assessment (“EA”),
6 AR 05536-05618, and Draft Decision Notice and Finding of No Significant Impact (“DN/FONSI”),
7 *id.* at 05501-05535, 05619-05626, for administrative review. Plaintiffs submitted timely
8 administrative objections to the EA. AR 05973-05975 (Washington Native Plant Society); AR
9 05976-06047. On March 16, 2021, the Forest Service rejected all objections and published a final
10 DN/FONSI with an errata attachment to the DN listing changes to the 2020 Spirit Lake Project EA.
11 AR 06283-06324, 06326-06334. The 2020 Spirit Lake Project EA and 2021 DN/FONSI are the final
12 agency actions challenged here. *Id.*

13 The purpose and need of the Spirit Lake Project is to: (1) obtain geotechnical subsurface
14 drilling data to more accurately determine and predict safe conditions for existing and possible future
15 alternate systems to control water levels in Spirit Lake; and (2) replace the tunnel intake gate
16 structure to improve lake level management, safety, and monitoring (inspection) of the Spirit Lake
17 tunnel intake gate. AR 05547. The selected alternative will require the dredging of approximately
18 7,100 cubic yards of spoils material from the existing spoils pile in front of Spirit Lake tunnel intake
19 channel. AR 05553. Approximately 2,700 cubic yards of suitable dredged material will be used to
20 construct a permanent access ramp from the lake to the existing helipad adjacent to the tunnel intake.
21 *Id.* The remaining dredged material would be moved up to 900 feet away from the Spirit Lake tunnel
22 intake and placed onto the lake bottom. *Id.*

1 The alternative calls for the demolition, removal, and disposal of the existing trash rack and
2 gate at the intake structure of the Spirit Lake tunnel, and construction of a new intake-control
3 structure at the remaining intake wall that would include concrete formwork and a cast-in-place
4 rehabilitated concrete structure. AR 05553. A new trash rack, intake gates, and service platform
5 would be fabricated and installed. *Id.* Boats and barges carrying equipment and/or crews will need to
6 traverse through the floating log mat at Spirit Lake. *Id.*

7 Implementation of this alternative also requires the reconstruction of existing National Forest
8 System Road 99, and the construction of temporary roads, staging areas, and a barge loading facility.
9 AR 05555. The terminus of National Forest System Road 99 extension, known as the researcher
10 parking lot, will be increased in size by an estimated 0.2 acre for use as a staging area during
11 implementation and material disposal after the completion of project work. *Id.* Construction of a
12 staging area could occur at the Windy Ridge recreation site or the Smith Creek Picnic recreation site,
13 or at both locations. *Id.* Construction of temporary roads would include new materials, road building
14 activities, stream crossings, drainage features, and other road structures to support access by
15 equipment. AR 05556.

16 Implementation of the geotechnical investigation and core sampling on the Pumice Plain
17 would begin when the temporary access road is complete and is expected to take up to five field
18 seasons. AR 05556. Non-helicopter temporary access roads would be maintained for the duration of
19 project implementation. *Id.* Once at the drilling area, drill vehicles would traverse from hole to hole.
20 *Id.* It is estimated that 3 to 5 drill vehicles would be used during the operations with approximately 30
21 personnel onsite. *Id.* Core sampling would occur at approximately 30 locations (approximately 104
22 acres) within the footprint of the 1982–1983 drilling site. *Id.* Core samples would be generated from
23 drill holes approximately 100 to 350 feet deep, and approximately 4 inches inside diameter. *Id.* Each
24

drill site location would occupy an approximately 100 to 200 square yard area (or up to 1,800 square feet) during drilling operations. *Id.* A temporary submersible or floating pump will be installed in Spirit Lake, which would feed a hose and fill a tank near the lake shore. AR 05557. Water for drilling operations may be brought in on the temporary access road with a truck or via helicopter. *Id.* Water from drilling operations would be disposed as surface run-off. *Id.* Disposal of drilling mud (composed of bentonite or biodegradable polymer products used to lubricate drilling equipment) would occur in one or multiple small pits on the Pumice Plain, the location of which is yet to be determined. *Id.*

V. ARGUMENT.

A. THE PROJECT VIOLATES THE NATIONAL FOREST MANAGEMENT ACT.

1. Failure to Comply with ACS Objectives.

The Ninth Circuit has explained that “The purpose of ACS is to maintain and restore ecosystem health at watershed and landscape scales to protect habitat for fish and other riparian-dependent species and resources and restore currently degraded habitats. This general mission statement in NFP does not prevent project site degradation and does nothing to restore habitat over broad landscapes if it ignores the cumulative effect of individual projects on small tributaries within watersheds.” *Pac. Coast Fed’n of Fishermen’s Ass’n, Inc. v. Nat’l Marine Fisheries Serv.*, 265 F.3d 1028, 1035–36 (9th Cir. 2001) (*PCFFA*). Compliance with the ACS is more than a proforma procedural exercise: the Forest Service must actually “manage the riparian-dependent resources to maintain the existing condition or implement actions to restore conditions.” *Klamath-Siskiyou Wildlands Ctr. v. U.S. Forest Serv.*, 373 F. Supp. 2d 1069, 1085-86, 1093 (E.D. Cal. 2004) (holding that the Forest Service must meet the substantive requirements of the ACS – i.e., to actually “maintain or restore” water quality). Projects must comply with the nine ACS Objectives at all spatial

1 and temporal scales, *PCFFA*, 265 F.3d at 1035–36 (9th Cir. 2001), *Cascadia Wildlands Project v.*
 2 *U.S. Fish & Wildlife Serv.*, 219 F. Supp. 2d 1142, 1149 (D. Or. 2002), and “management actions that
 3 do not maintain the existing condition or lead to improved conditions in the long term would not
 4 “meet” the intent of the ACS and thus, should not be implemented.” AR 01457.

5 Even in the best and most stable of conditions, road construction and use have numerous
 6 deleterious effects on the terrestrial and aquatic environments. Forest Service, *Special Areas;*
 7 *Roadless Area Conservation; Final Rule*, 66 Fed. Reg. 3,244, 3,245-46 (Jan. 12, 2001) (cataloging
 8 deleterious effects of roads on the environment). But the Project area is not the best and most stable
 9 of places to build a road: instead, it is highly dynamic, geologically active and unstable, and
 10 incredibly sensitive to disturbance. Consequently, Forest Service experts expressed extensive
 11 concerns about the deleterious effects to the environment. AR 03279-80 (litany of “hydrologic issues
 12 of concern”), 03287 (“summary of aquatic effects” explaining that adverse effects will occur in the
 13 short and long term), 03295-3303 (effects of road construction and use), 04336 (“consistency with
 14 the Aquatic Conservation Strategy would be challenging”). Going far beyond mere “concerns,”
 15 however, these effects clearly demonstrate several violations of the ACS Objectives. Because the
 16 Project will “not maintain the existing condition or lead to improved conditions in the long term [it]
 17 would not “meet” the intent of the Aquatic Conservation Strategy and thus, should not be
 18 implemented.” AR 01457.

19 *a. ACS Objective 2.*

20 ACS Objective 2 requires the Forest Service to “Maintain and restore spatial and temporal
 21 connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections
 22 include floodplains, wetlands, upslope areas, headwater tributaries, and intact refugia. These network
 23 connections must provide chemically and physically unobstructed routes to areas critical for fulfilling

1 life history requirements of aquatic and riparian-dependent species.” AR 01457. The Project will not
2 maintain and restore the spatial and temporal connectivity within and between watersheds because
3 the proposed road will cross numerous waterways,² thus physically disrupting existing stream
4 courses. AR 06075, 05406-08 (table detailing stream crossings), 06077 (photos of road right-of-way
5 crossing flowing water), 06079-80 (same), 06081-84 (maps showing known stream crossings),
6 02856, 03992 (road construction will “likely further alter the natural flow regime, change patterns of
7 erosion and deposition of sediments and, potentially result in the deposition of large cobbles and
8 sediment downstream during future high flow events...Research studies of both aquatic systems and
9 associated biota could also be impacted by the comparatively small but more frequent input of
10 sediment and nutrients resulting from the repeated passage of UTVs and ATVs over small streams,
11 seeps, and springs”), 06685-86 (identifying several springs that “are sensitive areas” to be crossed).

12 Indeed, the proposed road would be constructed directly in and adjacent to waterways, which
13 is expressly prohibited by the ACS. AR 01473-74 (ACS Roads Management direction), 04336
14 (proposed road is within, parallel to, and crosses numerous streams), 03302 (road will accelerate
15 erosion, increase sedimentation to waterways, and alter water flows), 03309, 04282 (construction of a
16 “road from Windy Ridge to Spirit Lake was deleted from Alt D due to active channel building” when
17 the Forest Service developed the 1985 CMP), 04337 (road construction will alter waterflows and
18 deposit sediment to waterways). In addition, critical nearshore shallow habitat located along the south
19 shore of Spirit Lake will be compromised by construction and use of the barge loading area,
20 alterations that the ACS prohibit. AR 04417, 04420, 04337, 06085, 04749-50, 04751. This habitat
21 currently provides a continuous longitudinal aquatic corridor that is vegetated and interspersed with

22 ² The hydrology report states that “The National Hydrography Dataset shows 5 perennial streams and 6 intermittent
23 streams crossed by the proposed access route. However, this underestimates what is on the ground. Google Earth imagery
24 indicates there are closer to 20 channels in the project area, with a wide range of surface flow in terms of seasonality and
spatial extent.” AR 03383; *see also* AR 03284 (describing the three types of waterway channels that must be crossed).

1 large woody debris and is heavily utilized by juvenile fish. AR 03287, 03287. Construction and use
2 of the barge loading area would disrupt this corridor and remove valuable habitat. *Id.*

3 *b. ACS Objective 3.*

4 ACS Objective 3 requires the Forest Service to “Maintain and restore the physical integrity of
5 the aquatic system, including shorelines, banks, and bottom configurations.” AR 01457. However,
6 the Project will not maintain and restore the physical integrity of the bottom of Spirit Lake because
7 the proposed Project requires dredging of Spirit Lake and redeposition of dredged materials into the
8 lake. AR 06089, 04417 (schematic showing that an existing “spoils pile” at the bottom of the lake
9 will be dredged and deposited elsewhere in the lake or used to construct the access ramp), 04750,
10 04751. Dredge spoils deposited in Spirit Lake may adversely affect aquatic life, interrupt the
11 chemistry at the sediment-water interface, potentially impact nutrient transport, and bury benthic
12 organisms. *Id.* Similarly, the shoreline of Spirit Lake that has naturally revegetated and formed over
13 the 40 years since the eruption will be permanently changed by construction and use of the barge
14 loading area. AR 04417, 04420, 04337, 06085, 04749-50 (acknowledging disturbance of “designated
15 wetland” and shoreline vegetation), 04751; Gawel Decl. ¶¶ 14-15.

16 *c. ACS Objective 4.*

17 ACS Objective 4 requires the Forest Service to “Maintain and restore water quality necessary
18 to support healthy riparian, aquatic, and wetland ecosystems. Water quality must remain within the
19 range that maintains the biological, physical, and chemical integrity of the system and benefits
20 survival, growth, reproduction, and migration of individuals composing aquatic and riparian
21 communities.” AR 01457. The Project will not maintain and restore water quality because it will be
22 degraded by disposing of drilling mud into a very permeable aquifer as a byproduct of the proposed
23 geotechnical drilling. AR 03279 (“Drilling may cause direct and indirect impacts to surface and
24

1 groundwater quality from drilling, site prep and equipment operations, and from discharge of water
2 from drilling operations and water used in testing subsurface permeability”), 03294, 04752.
3 Similarly, the “operation of heavy equipment and off road vehicles in and adjacent to streams may
4 cause chemical contamination of waterbodies from leakage of fluids or failure of equipment.” AR
5 03279, 03298-99. There is no analysis in the Project EA or DN/FONSI regarding how the use and
6 disposal of drilling mud, or extensive overland travel likely to result in the deposition of petroleum
7 products and other chemical contaminants complies with the ACS.

8 *d. ACS Objective 5.*

9 ACS Objective 5 requires the Forest Service to “Maintain and restore the sediment regime
10 under which aquatic ecosystems evolved. Elements of the sediment regime include the timing,
11 volume, rate, and character of sediment input, storage, and transport.” AR 01457. The Project will not
12 maintain and restore water quality or the sediment regime of waterways in the Project area because
13 road construction and use will increase sediment delivery to Project streams and Spirit Lake and alter
14 the timing, storage, and transport of sediment. AR 04337 (road construction likely to increase
15 sedimentation), 06077-84, 02857 (discussion of how road construction is likely to mobilize sediment
16 into the long term), 02858-62 (photos of proposed road right-of-way crossing riparian areas and
17 flowing water), 03276-77, 03278, AR 03279 (road construction, use, and maintenance will “disturb
18 ground surfaces, streambanks, and streambeds, increasing erosion and sediment delivery to streams”),
19 03294 (same), 03295-98 (aquatic effects from road construction and maintenance), 03279 (same).

20 The Pumice Plain has not yet developed a robust soil profile, has little established large
21 vegetation that can hold sediment in place, and is comprised of unconsolidated ash and pumice that is
22 easily mobilized by footsteps, let alone road construction. AR 03287 (“Based on the lack of forest
23 cover, duff, and cohesive soils in this heavily impacted landscape, erosion rates across the pumice
24

1 plain are presumed to be high in comparison with forested environments”), Gawel Decl. ¶¶ 15. The
2 disturbance created by road construction and use will increase turbidity to Project area waterways.
3 AR 04337, 06077-84, 02857, 02858-62, 03276-77, 03278, 03279, 03294, 03295-98, 03279, 03287.

4 *e. ACS Objective 8.*

5 ACS Objective 8 requires the Forest Service to “Maintain and restore the species composition
6 and structural diversity of plant communities in riparian areas and wetlands to provide adequate
7 summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank
8 erosion, and channel migration and to supply amounts and distributions of coarse woody debris
9 sufficient to sustain physical complexity and stability.” AR 01457. However, the Project will not
10 maintain and restore the species composition and structural diversity of plant communities in riparian
11 areas in the Project area because road construction and traffic will remove native vegetation at the
12 intersections of the road and all aquatic features (seeps, springs, wetlands, streams, and lake shore).
13 AR 06077 (photos of road right-of-way crossing flowing water), 06079-80 (same), 06081-84 (maps
14 showing known stream crossings), 02858-62 (photos of proposed road right-of-way crossing
15 vegetated riparian areas and flowing water), 03277 (road construction, use, and maintenance will
16 require vegetation removal and cause adverse effects to channel development and processes), 03279,
17 03279, 03293, 03299-03302. Removing vegetation to facilitate road and access ramp construction,
18 use, and maintenance will alter stream channel dynamics, shift channels, lead to channel drying and
19 disconnected spring sources, and alter the hydrology of sensitive wetlands, including around the
20 banks of Spirit Lake. AR 04342, 04751.

21 *f. ACS Objective 9.*

22 Finally, ACS Objective 9 requires the Forest Service to “Maintain and restore habitat to
23 support well-distributed populations of native plant, invertebrate, and vertebrate riparian-dependent
24

species.” AR 01458. The Project will not maintain and restore habitat to support well-distributed populations of native plant, invertebrate, and vertebrate riparian-dependent species because the Project will introduce and increase the spread of New Zealand mud snails (“NZMS”), which are highly invasive non-native species that threaten native aquatic biodiversity. AR 03988, 03989, 03988, 04750, 04724. Recent sampling in 2021 by Dr. Gawel provides evidence that NZMS are currently in high numbers at the proposed site of the Spirit Lake staging area, but currently not found in Bear Cove near the tunnel: the introduction and spread of NZMS has important and deleterious effects on ongoing research in the Project area. Gawel Decl. ¶¶ 21-26. Alterations to streams through increased sedimentation will reduce suitable habitat for native juvenile and adult fish and other riparian-dependent native aquatic wildlife. AR 03989-90 (“It is anticipated that effects from sedimentation created during route construction would alter the systems under study, and could have the greatest impact, at least in the short term”), 01840 (describing Harry, Harriet, and Helen, wild “rainbow trout” caught in Spirit Lake between 1993 and 1997). Native plant species surrounding riparian areas will be destroyed, in some cases permanently, by construction and operation of the proposed road. AR 06077, 06079-80, 06081-84, 02858-62, 03277, 03279, 03279, 03293, 03299-03302, 04342, 04751. These plant communities are a unique and irreplaceable assemblage of the post-eruption successional process. Gawel Decl. ¶¶ 15.

In sum, the Project will have extensive deleterious effects on numerous Aquatic Conservation Strategy Objectives, which the agency candidly acknowledges throughout the administrative record. Despite the disclosures, the Forest Service made no attempt to demonstrate that the Project “meets” or “does not prevent attainment” of the ACS objectives given these adverse effects, which is what the law requires. The Project is therefore arbitrary, capricious, and not in accordance with law. 5 U.S.C. § 706(2)(A).

2. Failure to Designate Riparian Reserves.

The NFP requires the Forest Service to designate “fish-bearing streams; permanently flowing nonfish-bearing streams; constructed ponds and reservoirs, and wetlands greater than 1 acre; lakes and natural ponds; seasonally flowing or intermittent streams, wetlands less than 1 acre; and unstable and potentially unstable areas” as Riparian Reserves. AR 01459-60. Riparian Reserves are afforded no or limited-disturbance buffers of varying widths from up to 300 feet on either side of fish-bearing streams to “the extent of unstable and potentially unstable areas (including earthflows).” AR 01460 (describing buffer widths). Protecting Riparian Reserves from disturbance is important because such protection is “necessary for maintaining hydrologic, geomorphic, and ecologic processes.” AR 01459; *Oregon Nat. Res. Council Fund v. Goodman*, 505 F.3d 884, 894-95 (9th Cir. 2007); *Oregon Nat. Res. Council Fund v. Brong*, 2004 WL 2554575, at *11 (D. Or. Nov. 8, 2004), *aff’d*, 492 F.3d 1120 (9th Cir. 2007). The NFP significantly constrains the types of activities that may occur within Riparian Reserves including road construction and use, AR 01503, 01473-75, construction and operation of support facilities, AR 01480,³ and the removal of vegetation from Riparian Reserves, AR 01503.⁴

The Forest Service failed to designate Riparian Reserves around streams and wetlands despite the fact that there are numerous such areas – including Spirit Lake – in the Project area through which the proposed road and other activities will occur. AR 03282-83 (Forest Service hydrologic report describing the entire Pumice Plain as highly dynamic and unstable, constantly creating and obliterating aquatic features), 04343 (“wet ponded area” near Spirit Lake through which the proposed

³ “Locate new support facilities outside Riparian Reserves.” The access road, barge access ramp, and drilling area are support facilities. AR 06085 (“Gate replacement activities require support facilities, including a barge loading facility on the shoreline, a staging area upland, and a temporary access road to connect them”).

⁴ “Prohibit timber harvest, including fuelwood cutting, in Riparian Reserves....”

1 road would run), 04749 (wetlands), 06085 (same), 03277, 03288 (acknowledging deleterious effects
2 on water features from proposed road on unstable areas), 03987.

3 Nothing in the administrative record indicates that the Forest Service recognized that these
4 aquatic features (i.e., streams, springs, wetlands, and Spirit Lake) or unstable areas (the entire Pumice
5 Plain) meet the definition of riparian reserve, or that the agency provided these features with the
6 requisite buffers through the process proscribed by the NFP. AR 01456-57 (describing process). Nor
7 has the Forest Service taken any steps to limit the disturbance in these areas or otherwise comply with
8 the management limitations proscribed by the NFP. Instead, as if none of these requirements existed,
9 the Forest Service blithely proposes to construct and operate a road across the Pumice Plain – an
10 unstable region with numerous streams, springs, and wetlands – and construct and operate a barge
11 ramp that will destroy several acres of wetlands on the Lake’s edge. The failure to designate and
12 manage Riparian Reserves is arbitrary, capricious, and not in accordance with the NFP or NFMA.
13 *Goodman*, 505 F.3d at 895; *Brong*, 2004 WL 2554575, at *11, *aff’d*, 492 F.3d 1120 (9th Cir. 2007).

14 **3. Failure to Prepare an Adequate Land and Resource Management Plan**
15 **Amendment.**

16 The Gifford Pinchot Forest Plan contains a visual quality objective of “retention” for the area
17 encompassing the Project. AR 05540. “Retention” is defined as “[t]he most restrictive visual quality
18 objective wherein management activities are not evident to the casual forest visitor.” *Id.* Because the
19 Forest Service found that the Project “would not be consistent with the management area category
20 standard...designated visual quality objective of retention for the project area,” the agency decided to
21 proceed with a “project-specific amendment” to the Forest Plan. AR 5540. The Forest Service intends
22 to use the project-specific amendment “to provide a project-specific variance to allow [the Project] to
23 exceed the designated visual quality objective of retention.” AR 55610.

1 The agency has neither complied with the existing plan content requiring consistency with the
2 visual quality objective of “retention,” nor created new plan content that meets the substantive
3 requirements of the 2012 Planning Rule (i.e., 36 C.F.R. §§ 219.8 through 219.11). The NFMA
4 implementing regulations do not permit forest plan amendments that simply eliminate forest plan
5 requirements. Instead, site-specific forest plan amendments must: 1) analyze the scope and scale of a
6 project’s purpose and/or effects necessitating a forest plan amendment (i.e., analyze “the purpose for
7 the amendment and the effects (beneficial or adverse) of the amendment, and informed by the best
8 available scientific information, scoping, effects analysis, monitoring data or other rationale”); 2)
9 determine whether the proposed amendment is “directly related” to the substantive provisions of the
10 2012 Planning Rule; 3) apply those substantive provisions of the 2012 Planning Rule to the
11 amendment; and 4) create new forest plan component(s) that address the same resource protection
12 needs of the forest plan component(s) that the proposed project cannot meet.

13 Although the Ninth Circuit has yet to consider it, the Fourth Circuit has interpreted the 2016
14 Planning Rule Amendment to the 2012 Planning Rule twice. In *Sierra Club v. Forest Service*, the
15 Forest Service proposed a site-specific amendment to the local land and resource management plan
16 because the project at issue “could not meet its requirements otherwise.” 897 F. 3d at 603. The Fourth
17 Circuit determined that because the Forest Service had “characterized the purpose of the amendment
18 as ensuring consistency between provisions of the Forest Plan and the proposal to construct, operate,
19 and maintain [the pipeline] on National Forest System land,” the “clear purpose of the amendment
20 [was] to lessen requirements protecting soil and riparian resources so that the pipeline project could
21 meet those requirements.” *Id.* As a result, the Fourth Circuit found that it was clear that the “2012
22 Planning Rule requirements for soil, water, and riparian resources are directly related to the purpose
23 of the Forest Plan amendment” and that “the Forest Service acted arbitrarily and capriciously in
24

1 concluding otherwise.” *Id.* The Fourth Circuit then held that the Forest Service was required to apply
2 the requirements that are directly related “within the scope and scale of the amendment,” which, “at
3 base, means that the Forest Service is required to ensure that amendments to the soil and riparian
4 standards in the [local Forest Plan] will comply with the NFMA and attendant regulations.” *Id.* citing
5 36 C.F.R. § 219.13(b)(5).

6 In a second case, *Cowpasture River Pres. Ass’n v. Forest Service*, the Fourth Circuit
7 concluded that the purpose of the planned amendments at issue was “to lessen certain environmental
8 requirements” in the LRMP because “the...project could not meet the [LRMP’s] existing
9 requirements.” 911 F.3d at 162. In failing to “apply the substantive provisions of the 2012 Rule,” the
10 Forest Service violated NFMA. *Id.* at 163 (“This failure is significant because it is clear that the
11 amendments (intended to lessen protections for soils, riparian areas, and threatened and endangered
12 species in the GWNF and MNF Plans) are directly related to the 2012 Planning Rule’s substantive
13 requirements for these same categories”).

14 Here, the Forest Service stated that the purpose of the project-specific amendment was to
15 allow the Project to exceed the Forest Plan’s visual quality objective for the area. AR 55610. The
16 Forest Service does recognize that the purpose of the amendment is directly related to two of the
17 2012 Planning Rule requirements, 36 C.F.R. § 219.8(b)(2) and 36 C.F.R. 219.10(a)(1), both related to
18 scenic and visual resources. AR 55611. However, the Forest Service failed to apply the substantive
19 provisions of the 2012 Planning Rule to the amendment and develop new plan content. Instead, the
20 agency merely concluded that “the adverse impact of the amendment would not be substantial
21 because the effects on visual resources would be localized from specific viewpoints within the
22 Monument and would affect a small proportion (less than 0.5 percent) of areas in the Monument with
23 the mapped visual quality objective of retention.” AR 06313.

1 Rather than applying the substantive requirements of §§ 219.8 through 219.11 of the 2012
 2 Planning Rule to create an amendment that is consistent with the Forest Plan, the Forest Service
 3 simply exempted itself from the visual quality objective. AR 05540. The 2016 Planning Rule
 4 Amendment is clear that such an exemption (or “variance”) is unlawful. 81 Fed. Reg. 90,725-26. The
 5 visual impacts of the Project will substantially affect at least 475 acres of the area most viewed by
 6 visitors: the views from Johnston Ridge Observatory, Windy Ridge Overlook, and the Truman Trail,
 7 “key viewing platforms and routes...from which most visitors view [the] area,” as highlighted by the
 8 Visibility Maps prepared by the Forest Service. AR 05537, 07482-84 (maps of areas that can be seen
 9 from Windy Ridge and Johnson Ridge); 06312; *see also*, Bishop Decl. ¶¶ 34-35, Waters Decl. ¶ 13,
 10 Kerr Decl. ¶¶ 12-13. Assuming for the sake of argument that the Forest Service is correct that the
 11 Project will last for 5 to 10 years, AR 05575, and that the physical environment is expected to return
 12 to pre-project conditions 2-15 years after project implementation, AR 05569, the effects on the
 13 viewsheds from key viewing platforms where most people visit the Monument will be substantially
 14 affected for a time period that may exceed 20 years.

15 The Forest Service must develop new Forest Plan content that meets the intent of the original
 16 land and resource management plan. The Forest Service’s failure to prepare an adequate forest plan
 17 amendment is arbitrary, capricious, and not in accordance with NFMA. 5 U.S.C. § 706(2)(A).

18 **B. THE PROJECT VIOLATES THE NATIONAL ENVIRONMENTAL POLICY**
 19 **ACT.**

20 **1. Failure to Consider the Project’s Direct, Indirect, and Cumulative Effects.**

21 To support a determination of non-significance in an EA, the Forest Service must consider the
 22 direct, indirect, and cumulative environmental effects of a proposed action in conjunction with the
 23 effects of past, present, and reasonably foreseeable future actions. 40 C.F.R. § 1508.8; *Goodman*, 505
 24 F.3d at 889; *Klamath Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 2014 WL 525116, at *2 (D.

1 Or. 2014); *Ctr. for Envtl. Law & Policy v. U.S. Bureau of Reclamation*, 655 F.3d 1000, 1006 (9th Cir.
2 2011). In the present case, there are three types of effects that the Forest Service failed to consider: 1)
3 the direct, indirect, and cumulative effects of geotechnical and core sampling on the Pumice Plain
4 debris flow; 2) the direct, indirect, and cumulative effects of the Project on the ongoing scientific
5 research that will be disrupted or precluded by implementation of the Project; and 3) the direct,
6 indirect, and cumulative effects of the Project in conjunction with the effects of past, present, and
7 reasonably foreseeable future actions.

8 First, the Forest Service failed to consider the direct, indirect, and cumulative effects of
9 geotechnical and core sampling on the Pumice Plain debris flow. One of the two primary needs of the
10 Project is to conduct geotechnical drilling and core sampling on the Pumice Plain debris flow. AR
11 05544-47. The Forest Service expects that 1,980 passenger vehicle passes, 84 tractor-trailer passes,
12 464 single-unit truck passes, and 6-10 drill rigs passes per season will be necessary to conduct core
13 sampling at approximately 30 locations on the Pumice Plain, which will require the use and disposal
14 of drilling mud on the Pumice Plain. AR 04633. Other than stating that these actions will occur, the
15 EA does not assess the environmental consequences of the geotechnical drilling and core sampling:
16 the EA and record are simply devoid of any *analysis* of the effects of this portion of the Project. *See*,
17 AR 03294 (“Drilling has the potential to deliver sediments to groundwater and to any streams or
18 wetlands near the drilling activities, but since the actual drilling sites are not yet known with any
19 precision, this effect is difficult to estimate”).

20 Second, the Project will adversely affect thousands of research sampling locations located
21 within or immediately adjacent to the right-of-way of the proposed road, temporarily and
22 permanently disrupting the research and associated education that is conducted at these sites. AR
23 05372- 05375, 04590-91 (map showing some known research locations); Gawel Decl. ¶¶ 3-30;

1 Bishop Decl. ¶¶ 21-29; Leroy Decl. ¶¶ 5-7, 12; Evans Decl. ¶ 2-23. A sample of the research that
 2 would be affected by the Project include genetic studies of botanical species, insect herbivory impacts
 3 on native species, development of plant communities on the Pumice Plain, wolf recovery in the
 4 region, and hydrological flow patterns, among many other topics. AR 06547-74. Many of these
 5 studies include associated academic and public outreach and education. *Id.*

6 During the development of the Project, numerous scientists utilizing Mount St. Helens for
 7 their research and pedagogy expressed their concerns that the EA did not assess the effects of the
 8 Project on their research and teaching activities, vociferously arguing that their input had been
 9 ignored and that the Project would destroy their research and educational instruction, which would
 10 have profound implications for global scientific discovery that is occurring nowhere else on earth.
 11 AR 05811 (comments of Dr. Michael Allen), 05815 (comments of Dr. Cynthia Chang), 05819
 12 (comments of Ph.D candidate Sofia D'Ambrosio), 05820 (comments of Dr. Roger del Moral), 05822
 13 (comments of Nina Ferrari, Field Technician at Mount St. Helens Pacific Northwest Research
 14 Station,), 05834 (comments of Dr. Tom Hinckley who began his career on Mount St. Helens in
 15 1980), 05836-37 (comments of aquatic research scientist Joy Hobbs), 05841 (comments of researcher
 16 Meredith Holgerson), 05847 (comments of Dr. Felice Kelly), 05853 (comments of Dr. Carri LeRoy),
 17 05860 (comments of Bob Lucas, retired fish biologist, Washington Department of Fish and Wildlife),
 18 05879 (comments of Albert O'Connor, retired engineer and geologist who "worked on the Gifford
 19 Pinchot National Forest (GPNF) for ten years as a geologist from 1975 through 1983"), 05962
 20 (comments of Dr. Fred Swanson), AR 05970-71 (comments from Ph.D candidate Emily Wolfe),
 21 04238-40, 06786, 04163-70 (letter from Acting Station Director of the Pacific Northwest Research
 22 Station to GPNF Forest Supervisor outlining Project impacts to research). The perspective of the
 23 research community can be best summarized by Dr. Debra Finn: "Why have the well-reasoned and
 24

1 thoughtful letters from my fellow scientists and me been thus far ignored? What is going on here?”
2 AR 05825.

3 Aside from acknowledging that the Project is likely to affect research activities (although not
4 the pedagogical or societal benefit of it), the EA does not undertake an environmental analysis of the
5 nature of the effects of the Project on ongoing research, whether the long-term research studies will
6 be able to continue, and what the loss of this research will mean for “society as a whole (human,
7 national), the affected region, the affected interests, and the locality.” 40 C.F.R. § 1508.27(a).

8 Third, the EA and DN/FONSI fail to consider the direct, indirect, and cumulative effects of
9 the Project in conjunction with the effects of two past, present, and reasonably foreseeable future
10 actions: the 2018 Spirit Lake Project and the long-term management plan for Spirit Lake. The Forest
11 Service partially implemented a project with a similar purpose and need in 2018, but the effects of
12 that implementation were outside of the scope of those analyzed in that prior environmental
13 assessment: shortly after constructing the motorized route to Duck Bay and before the agency could
14 access Spirit Lake to implement maintenance and repair of the Spirit Lake access gate, seasonal rains
15 and precipitation washed out the road, causing extensive damage to the road and increased sediment
16 movement into the entire downstream length of Willow Creek and its outflow into Spirit Lake.
17 LeRoy Decl. ¶¶ 5-6. The current Project will reuse a portion of “the Duck Bay route” to access Spirit
18 Lake to repair the gate and the Pumice Plain to conduct geotechnical drilling. AR 05347 (map
19 showing proposed road route in green and route to Duck Bay in pink).

20 Neither the 2018 EA nor the 2020 EA for the current Project discuss or analyze the
21 cumulative effects from the 2018 project, the washout of the Duck Bay route, and the current Project,
22 even though Forest Service resource specialists regularly acknowledged that cumulative effects are
23 expected. *See*, AR 03302 (“implementation of the Proposed Action has the potential to result in
24

1 cumulative effects to the aquatic environment when considered in context with other activities that
2 have previously occurred in the planning area, that are ongoing in that area, or that are anticipated”).

3 Two, the Project challenged in this action has two main components, including providing
4 access to the “drilling area” on the Pumice Plain to conduct geotechnical drilling. AR 05547. The
5 Project EA is silent about the ultimate purpose of the geotechnical drilling, but presumably the
6 information gathered from the drilling will be used for future project design and development.
7 Indeed, the record is clear that the Forest Service has been concerned about the long-term
8 management of Spirit Lake since the 1980 eruption and has taken intermediate steps towards actually
9 developing that course of action without a big-picture review and analysis of potential management
10 options. *See*, Saul Decl. ¶¶ 37, 41-43, 60-62; Raines Decl. ¶¶ 5, 33-35; AR 00099-00435 (1984 Army
11 Corps of Engineers FEIS exploring “Alternative Strategies for a Permanent Outlet for Spirit Lake
12 Near Mount St. Helens, Washington”), 02977- 03140, 03317-653, 06066, 05481, 05744-49, 06066
13 (information from the geotechnical drilling will be used to assess “future alternate systems to control
14 water levels in Spirit Lake”), 03929 (“The purpose of the Spirit Lake reevaluation study is to review
15 the long-term solution for maintaining safe lake outlet and justify the need to pursue or not pursue a
16 Rehabilitation or Modification Study”), 04497 (purpose of geotechnical drilling information is to
17 “evaluate feasibility of outflow alternatives located in debris blockage”). The Project is part of a
18 series of connected actions with cumulative effects that address the use and management of Spirit
19 Lake and the Pumice Plain, but the Forest Service has inappropriately segmented its consideration of
20 the cumulative effects of these actions and failed to consider them in a single environmental impact
21 statement.

1 In sum, the Forest Service failed to consider the direct, indirect, and cumulative effects of the
2 Project and all past, present, and reasonably foreseeable future actions, in violation of NEPA. 5
3 U.S.C. § 706(2)(A).

4 **2. Failure to Prepare an Environmental Impact Statement.**

5 NEPA requires the Forest Service to prepare an EIS when a major federal action is proposed
6 that may significantly affect the quality of the environment. 42 U.S.C. § 4332(2)(C). In determining
7 whether a proposed action *may* “significantly” impact the environment, both the context and intensity
8 of the action must be considered. 40 C.F.R. § 1508.27. In evaluating “context,” the Forest Service
9 must assess the significance of an action “in several contexts such as society as a whole (human,
10 national), the affected region, the affected interests, and the locality.” 40 C.F.R. § 1508.27(a). The
11 Spirit Lake Project’s context includes the international, national, regional, and local value of the
12 Project area to scientific research and to an understanding and appreciation of the natural world. In
13 evaluating “intensity,” federal defendants must consider numerous “significance” factors. 40 C.F.R.
14 §§ 1508.27(b)(1)-(b)(10). The presence of a single significance factor is sufficient to compel the
15 preparation of an EIS. *Ocean Advocates v. United States Army Corps of Eng’rs*, 361 F.3d 1108,
16 1124-1125 (9th Cir. 2004).

17 The Forest Service has failed to prepare an EIS for the Project, despite the presence of several
18 factors indicating possible significant environmental consequences of the proposed action
19 considering the environmental context in which the Project will occur. These deficiencies – both
20 individually and in combination – indicate that the EA fails to meet the minimum NEPA
21 requirements, and an environmental impact statement is therefore required. 40 C.F.R. § 1500.1(b).

1 a. *Impacts that may be both beneficial and adverse and the degree to*
 2 *which the proposed action affects public health or safety (40 C.F.R. §§*
 1508.27(b)(1), (b)(2)).

3 The purpose and need for the Spirit Lake Project is “to ensure the protection of public safety,
 4 health, property, and the environment from a catastrophic breach of the Spirit Lake natural debris
 5 blockage caused by the 1980 debris avalanche.” AR 05616. To achieve the Project’s objectives,
 6 numerous adverse effects to the environment will occur, including but not limited to increased
 7 sedimentation from road construction and use, disruption and termination of long-term scientific
 8 research, destruction of riparian and other vegetation and unique plant and animal assemblages,
 9 introduction and spread of invasive nonnative species, disruption of recreational access, lost
 10 education outreach opportunities, lost training opportunities for undergraduates and graduate
 11 students, changes to the view from Johnston Ridge Observatory and Windy Ridge Overlook,
 12 alteration of aquatic process and function, and alteration of the topography of the Spirit Lake bottom.
 13 *See, supra* Sections V.A.1. – V.B.1.

14 Regardless of these adverse effects, the Forest Service has championed the Project because of
 15 its substantial “beneficial” effects to downstream communities that will someday gain from the long-
 16 term management of Spirit Lake and its outflow, which will be made possible from the repair of the
 17 Spirit Lake gate and information generated by the geotechnical drilling on the Pumice Plain. AR
 18 05547. Plaintiffs do not disagree that the health and safety of communities downstream from Spirit
 19 Lake is of paramount importance, Kerr Decl. ¶ 9; Waters Decl. ¶¶ 8-13; Raines Decl. ¶¶ 26, 35; Dale
 20 Decl. ¶¶ 19-21; LeRoy Decl. ¶ 22, but Plaintiffs observe that the importance of public safety also
 21 means that it is extraordinarily important that the Forest Service correctly assess the ecological,
 22 social, and economic risks and challenges involved, and that the agency correctly decide upon the
 23 best course of action. 40 C.F.R. § 1508.27(b)(1).

Because the need for the Project is tied directly and primarily to public health and safety, an EIS should have been prepared pursuant to 40 C.F.R. § 1508.27(b)(2). As this court explained in *Citizens Against Toxic Sprays, Inc. v. Bergland*, “no subject to be covered by an EIS can be more important than the potential effects of a federal program upon the health of human beings,” 428 F. Supp. 908, 927 (D. Or. 1977), *supplemented*, (D. Or. Apr. 18, 1978); *see also*, *People Against Nuclear Energy v. U. S. Nuclear Regul. Comm’n*, 678 F.2d 222, 228 (D.C. Cir. 1982), *cleaned up*, 460 U.S. 766 (1983). While the best available science indicates that the likelihood of a complete failure of the current infrastructure at Spirit Lake is highly unlikely and that ample warning of such a failure is already assured, AR 02983 (“...failure or blockage of the existing tunnel would not result in an immediate release of Spirit Lake. Instead, under most circumstances, many months would be required for the lake to fill to a level that would induce breaching of the blockage. Presumably, this lag time would allow for intervention to prevent a catastrophic lahar”), “where risk is credible and uncertain, and the consequences grave, low probability is only one of several highly relevant factors that should be considered” in an EIS. *City of New York v. U.S. Dep’t of Transp.*, 539 F. Supp. 1237, 1274–75 (S.D.N.Y. 1982), *rev’d*, 715 F.2d 732 (2d Cir. 1983); 40 C.F.R. § 1508.27(b)(2).

b. *Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas (40 C.F.R. § 1508.27(b)(3)).*

The Spirit Lake Project would conduct in-water activities at Spirit Lake and construct and operate a vehicular road across the Pumice Plain, which are located in the Mount St. Helens National Volcanic Monument, an area designated by Congress due to its ecologically critical and scientific value. AR 00075-83. The Project area is a Class I Research Area, where scientific research is prioritized above other uses. AR 04467-68. The Project will occur within numerous wetlands. AR 04749-50, 04342, 04751, 04749, 06085, 03294. It is a historic resource, given that the world has

1 watched Loowit erupt and recover, in real time, providing unique lessons for scientific discovery and
2 humanity. Dale Decl. ¶ 2; Bishop Decl. ¶¶ 3-26; Gawel Decl. ¶¶ 5-21; Evans Decl. ¶¶ 4-17; Saul
3 Decl. ¶¶ 44-46, 65; Raines Decl. ¶¶ 4-5; *see also infra* Section V.B.2.f.

4 The volcano is also listed on the National Register of Historic Places as a Traditional Cultural
5 Property for the Cowlitz Tribe and Yakima Nation. *Id.* at 04147. In addition to the “rare” designation
6 as a Traditional Cultural Property, it is beyond dispute that Mount St. Helens is globally unique
7 because of the real-time terraforming and the unparalleled scientific research and education occurring
8 at the volcano. AR 03292, 03992. The Project will significantly adversely affect this unique and
9 ecologically critical area by permanently disrupting numerous ongoing studies and the global
10 significance of the research generated there. Bishop Decl. ¶¶ 3-35; Gawel Decl. ¶¶ 3-30; LeRoy Decl.
11 ¶¶ 2-22; Dale Decl. ¶¶ 1-23; Saul Decl. ¶ 16; AR 05811, 05815, 05819, 05820, 05822, 05834, 05836-
12 37, 05841, 05847, 05853, 05860, 05879, 05962, 05970-71, 04238-40, 06786, 06747-49, 05825, AR
13 04467-68, 03114 (“the current operation and management of Spirit Lake and its outlet can be viewed
14 as a kind of “grand experiment.” Although the presence of an engineered tunnel outlet means that this
15 is not entirely a “natural” experiment, any change in management or construction of new
16 infrastructure other than a rehabilitated tunnel will inevitably change the course of the experiment
17 and trajectories of recovery that have been in place for more than three decades. An evaluation of the
18 biophysical and scientific consequences of any change in strategy seems warranted”).

19 While the Forest Service of course recognizes that the Project is located on Mount St. Helens,
20 it never assessed the effects of the Project in light of this unique and ecologically critical area that is
21 also a Traditional Cultural Property and historic resource: for example, the agency repeatedly
22 disregarded the concerns of scientific experts working on the Pumice Plain and Spirit Lake about the
23 Project’s adverse effects on the scientific research and education occurring there, in addition to the

1 ecological impacts of building a road in a geologically- and volcanically-active landscape prone to
 2 instability, across and through Riparian Reserves⁵ and wetlands, and in a manner that is likely to
 3 compromise native biodiversity by introducing and spreading invasive species like the New Zealand
 4 mud snail.

5 *c. The degree to which the effects on the quality of the human*
 6 *environment are likely to be highly controversial, highly uncertain, or*
involve unique or unknown risks (40 C.F.R. §§ 1508.27(b)(4), (b)(5)).

7 “A project is ‘highly controversial’ if there is a substantial dispute about the size, nature, or
 8 effect of the major Federal action rather than the existence of opposition to a use. A substantial
 9 dispute exists when evidence...casts serious doubt upon the reasonableness of an agency’s
 10 conclusions. Mere opposition alone is insufficient to support a finding of controversy.” *Bark v.*
 11 *United States Forest Serv.*, 958 F.3d 865, 870 (9th Cir. 2020) (internal citations, alterations, and
 12 quotations omitted). Similarly, “an agency must generally prepare an EIS if the environmental effects
 13 of a proposed agency action are highly uncertain [or involve unique or unknown risks]. Preparation
 14 of an EIS is mandated where uncertainty may be resolved by further collection of data, or where the
 15 collection of such data may prevent speculation on potential effects.” *W. Watersheds Project v.*
 16 *Bureau of Land Mgmt.*, 552 F. Supp. 2d 1113, 1135–36 (D. Nev. 2008) (internal citations, alterations,
 17 and quotations omitted).

18 The Forest Service acknowledges that there is a substantial amount of information about the
 19 Pumice Plain and Spirit Lake that is highly controversial and unknown, without which it cannot make
 20 an informed, rational decision. AR 03292, 03296, 03287 (aquatic and other effects unknown due to
 21 dynamic nature of Pumice Plain), 03294, 03300, 03987, 04752, 03294, 03300, 03302 (“with the
 22 known disturbance history of the planning area, the unknown details of project design and location,

23 ⁵ This court has recognized that Riparian Reserves are ecologically critical areas. *Cascadia Wildlands v. U.S. Forest*
 24 *Serv.*, 937 F. Supp. 2d 1271, 1283 (D. Or. 2013).

1 and the uncertainty of appropriate maintenance over the many years the access routes would be in
 2 place, there is extremely limited data from which to construct a fact-based assessment that would
 3 quantify or partition out the likelihood of any particular outcome”), 03987, 04233-36. The Pumice
 4 Plain and Spirit Lake are ecological features that exist nowhere else on earth, and the Forest Service
 5 has never before built, used, and remediated a vehicular road in an analogous ecological setting
 6 because none exists. AR 03300, 03292 (“there are limited—if any—similar landscapes that have been
 7 studied at this stage of development after a disturbance on the scale of Mt St Helens eruption”),
 8 03312, 04467-68, 03110-13 (identifying “a number of uncertainties and gaps in the data that, if
 9 addressed, would improve understanding of some of the issues facing decisionmakers developing a
 10 long-term strategy for managing the outlet of Spirit Lake”). It is unknown what the short- and long-
 11 term effects on ongoing scientific research will be from the Project, which may represent a
 12 fundamental loss of irreplaceable scientific information about geologic and biological processes. AR
 13 03988, 03989-90, 04467-68, 03989 (acknowledging uncertainty about even the number of “research
 14 plots and sampling sites” potentially affected by the Project). It is unknown how the further
 15 introduction and spread of New Zealand mud snails, a highly invasive species, will affect the newly
 16 developing ecology of the Pumice Plain and Spirit Lake. AR 03988, 03989, 03988, 04750, 04724,
 17 03989-90; Gawel Decl. ¶¶ 21-26.

18 *d. The degree to which the action may establish a precedent for future*
 19 *actions with significant effects or represents a decision in principle*
about a future consideration (40 C.F.R. § 1508.27(b)(6)).

20 “[P]reparation of an EA is usually highly specific to the project and the locale, thus creating
 21 no binding precedent,” *Barnes v. U.S. Dept. of Transp.*, 655 F.3d 1124, 1140 (9th Cir.2011), and
 22 “courts have therefore been reluctant to conclude that 40 C.F.R. § 1508.27(b)(6) provides an
 23 independent basis for preparing an EIS.” *Friends of the Wild Swan v. U.S. Forest Serv.*, 875 F. Supp.

2d 1199, 1218 (D. Mont. 2012), *aff'd in part, vacated in part, remanded sub nom. Friends of the Wild Swan v. Garcia*, 650 F. App'x 400 (9th Cir. 2016). However, the Ninth Circuit has explained that the purpose of 40 C.F.R. § 1508.27(b)(6) “is to avoid the thoughtless setting in motion of a chain of bureaucratic commitment that will become progressively harder to undo the longer it continues.” *Presidio Golf Club v. Nat'l Park Serv.*, 155 F.3d 1153, 1162–63 (9th Cir. 1998).

Since the Monument's designation in 1982, the Pumice Plain has been managed for nonmotorized recreation and scientific study. Not since the designation has the Forest Service constructed a road across the geologically active Pumice Plain: indeed, the agency has never before built a road (temporary or otherwise) across an active volcano that is dynamically eroding and accreting. Once built, the road will become a permanent feature on the landscape. The Forest Service acknowledges that the Project is the first step in gathering additional information to support future actions on the Pumice Plain and at Spirit Lake that are likely to lead to dramatic changes in the Pumice Plain's ecology and human use, thus making the Project a precedent-setting decision that should have been assessed in an environmental impact statement. Saul Decl. ¶¶ 37, 41-43, 60-62; Raines Decl. ¶¶ 5, 33-35; AR 00099-00435, 02977- 03140, 03317-653, 06066, 05481, 05744-49, 06066, 03929, 04497; BLACK'S LAW DICTIONARY 1176 (6th ed. 1990) (“Precedent...A course of conduct once followed which may serve as a guide for future conduct”).

e. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts (40 C.F.R. § 1508.27(b)(7)).

“To ‘consider’ cumulative effects, some quantified or detailed information is required. Without such information, neither the courts nor the public, in reviewing the Forest Service's decisions, can be assured that the Forest Service provided the hard look that it is required to provide.” *Neighbors of Cuddy Mountain v. U.S. Forest Serv.*, 137 F.3d 1372, 1379 (9th Cir. 1998). The

1 cumulative effects “analysis must be more than perfunctory; it must provide a useful analysis of the
 2 cumulative impacts of past, present, and future projects.” *Klamath-Siskiyou Wildlands Ctr. v. Bureau*
 3 *of Land Mgmt.*, 387 F.3d 989, 993–94 (9th Cir. 2004). The Project violates NEPA by failing to
 4 consider the cumulative effects of: 1) the Project’s geotechnical and core sampling on Pumice Plain
 5 natural resources and processes; 2) the Project on the ongoing scientific research that will be
 6 disrupted or precluded by implementation of the Project; and 3) the Project in conjunction with the
 7 effects of past, present, and reasonably foreseeable future actions. *Supra* Section V.B.1. The record
 8 clearly indicates that there are a number of known cumulative effects from the Project, as well as
 9 substantial data gaps regarding additional cumulative effects. Despite the known knowns and known
 10 unknowns, the Forest Service unlawfully failed to obtain the missing information or prepare a
 11 comprehensive EIS considering all synergistic effects of the Project.

12 *f. The degree to which the action may...cause loss or destruction of*
 13 *significant scientific, cultural, or historical resources (40 C.F.R. §*
1508.27(b)(8)).

14 Mount St. Helens National Volcanic Monument, the Pumice Plain, and Spirit Lake represent a
 15 truly globally unique natural environment and world-class research laboratory. *See*, AR 05820 (“The
 16 research being done on Mount St. Helens is unique (a word I do not use lightly). Nowhere in the
 17 world, ever, and probably never again, has so much first-rate science been conducted in one large
 18 ecosystem by so many dedicated and accomplished scientists”); *supra* Section V.B.1. Dozens of past
 19 and present researchers provided information⁶ to the Forest Service explaining how the Project would
 20 disrupt and/or destroy their research and outlined the singularly adverse ecological and pedagogical
 21 effects caused by the Project. Bishop Decl. ¶¶ 3-35; Gawel Decl. ¶¶ 3-30; LeRoy Decl. ¶¶ 2-22; Dale

22
 23 ⁶ Not all researchers currently working at Mount St. Helens were contacted or provided information to the Forest Service
 24 about the Project’s potential effects on their research. AR 05372-75 (“Master List of Research at MSH” spreadsheet with
 numerous rows of blank information including lead researcher and contact information).

Decl. ¶¶ 1-23; AR 05811, 05815, 05819, 05820, 05822, 05834, 05836-37, 05841, 05847, 05853, 05860, 05879, 05962, 05970-71, 04238-40, 06786, 06747-49, 04163-70, 05825. This scientific research is occurring nowhere else on earth and is still providing society with new insights into ecology, evolution, disturbance, and ecosystem development more than 4 decades after the eruption. *Id.* Much of this research will cease to occur if the Project is implemented. *Id.* And yet the EA does not assess the irreparable loss of this invaluable knowledge.

Mount St. Helens, the Pumice Plain, and Spirit Lake are also important cultural resources for Indigenous people who have lived on and near Loowit since time immemorial. AR 04147-62. Indeed, in September 2013 “an area above the tree line on Mount St. Helens, also known by the tribal name Lawetlat’la, was listed on the National Register of Historic Places (NRHP) as a Traditional Cultural Property. This relatively rare designation for an undeveloped natural feature recognizes the importance of Lawetlat’la to local Native American peoples including the Cowlitz Indian Tribe and the Confederated Tribes and Bands of the Yakama Nation.” *Id.* at 04147. The Project EA makes no mention of this special designation and provides no analysis of how the Project will affect the Traditional Cultural Property or the people who depend on it, but given that it was designated specifically because of its unroaded and unmarred nature, there may be significant adverse effects to this cultural resource.

Finally, Mount St. Helens serves as a potent historical reminder of the awesome power of nature. For those who witnessed the 1980 eruption and who have studied and watched the volcano since then, it is history in the making: the ecological change of the blast zone is stark, and we are all watching, in real time, the formation of new land, watersheds, waterways, and ecological assemblages and systems. Dale Decl. ¶ 2; Bishop Decl. ¶¶ 3-26; Gawel Decl. ¶¶ 5-21; Evans Decl. ¶¶ 4-17; Saul Decl. ¶¶ 44-46, 65; Raines Decl. ¶¶ 4-5. Mount St. Helens is a historical resource because

it at once reminds society not only how quickly nature can change our natural environment, but also how quickly nature can begin to repair itself: it is no place for a road.

g. *Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment (40 C.F.R. § 1508.27(b)(10)).*

Finally, as discussed *supra*, the Project threatens several violations of the Northwest Forest Plan and therefore the National Forest Management Act, federal laws enacted for the protection of the environment. These violations are significant and include the failure to protect water resources, designate Riparian Reserves, and prepare a lawful forest plan amendment regarding the protection of visual resources.

In sum, there are numerous significant factors that individually and collectively indicate that there may be significant environmental consequences of the Project necessitating the preparation of an EIS. Because the Forest Service failed to prepare one, the decision to proceed is arbitrary, capricious, and not in accordance with law. 5 U.S.C. § 706(2)(A).

VI. CONCLUSION.

Mount St. Helens is no ordinary place, and the Forest Service has failed to heed the law requiring it to take special care of Loowit for present and future generations. For the forgoing reasons, the Court should GRANT Plaintiffs' motion for summary judgment.

Respectfully submitted and dated this 27th day of August, 2021.

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